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10/780,219

02/17/2004

Jeffrey W. Scott

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O'KEEFE, EGAN, PETERMAN & ENDERS LLP  
1101 CAPITAL OF TEXAS HIGHWAY SOUTH  
#C200  
AUSTIN, TX 78746

EXAMINER

PHU, PHUONG M

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/780,219

Applicant(s)

SCOTT ET AL.

Examiner

Phuong Phu

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 56-95 is/are pending in the application.
- 4a) Of the above claim(s) 83-95 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 56-66, 68-73 and 75-82 is/are rejected.
- 7) ☒ Claim(s) 67 and 74 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This Office Action is responsive to the Response filed on 4/17/07. Accordingly, claims 1-55 are canceled; and claims 56-95 are currently pending of which claims 56-82 have been elected and claims 83-95, being non-elective claims, withdrawn from further consideration.

#### *Double Patenting*

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 56-59, 62 and 63 are provisionally rejected on the ground of nonstatutory

obviousness-type double patenting as being unpatentable over claim 110 of copending

Application No. 10/780,142. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. (In Application No. 10/780,142, see claim 110 and claims 103, 108 and 109 on which claim 110 depends).

-Regarding to claim 56, claim 110 discloses a method for communicating with phone lines across an isolation barrier that comprises a plurality of isolation elements, the method comprising:

procedure (comprising “phone line side circuitry” (see claim 103, lines 10-14)) of generating an encoded digital differential signal “encoded digital differential signal” (see claim 108) from a digital data signal “digital data”, wherein the encoded digital differential signal includes control data and the digital data signal (see claim 109);

procedure (comprising “phone line side circuitry” (see claim 103, lines 10-14)) of communicating said encoded digital differential signal from phone line side circuitry “phone line side circuitry” to powered side circuitry “powered side circuitry” cross at least two of the isolation elements of said isolation barrier, the at least two isolation elements comprising at least a first isolation capacitor “first isolation capacitor” and a second isolation capacitor “second isolation capacitor”, wherein bidirectional communication exists through the first and second isolation capacitors;

procedure (comprising “powered side circuitry” (see claim 103, lines 15-18)) of providing a clock signal “clock signal” from the powered side circuitry to the phone line side circuitry through at least one of the plurality of isolation elements “isolation elements”; and

procedure (comprising “powered side circuitry” (see claim 103, lines 19-23)) of providing power from the powered side circuitry to the phone line side circuitry while still maintaining the isolation required by the phone line isolation regulatory standards.

-Regarding to claim 57, claim 110 discloses that said control data comprises phone line status information (see claim 110).

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-Regarding to claim 58, claim 110 discloses the encoded digital differential signal includes both data information and control information (see claim 103, lines 24-25).

-Regarding to claim 59, claim 110 discloses that the method comprises procedure (comprising “powered side circuitry” (see claim 103, lines 15-18)) of providing a clock signal “clock signal” from the powered side circuitry to the phone line side circuitry through at least one of the plurality of isolation elements that is separate from the first isolation capacitor and the second isolation capacitor.

-Regarding to claim 62, as similarly applied to claims 56-59 set forth above and herein incorporated, claim 110 discloses a method for communicating with phone lines across an isolation barrier that comprises a plurality of isolation elements, the method comprising:

procedure (comprising “phone line side circuitry”) of generating an encoded digital differential signal from a digital data signal, wherein the encoded digital differential signal includes control data and the digital data signal;

procedure (comprising “phone line side circuitry”) of communicating said encoded digital differential signal from phone line side circuitry to powered side circuitry across at least two of the isolation elements of said isolation barrier, the at least two isolation elements comprising at least a first isolation capacitor and a second isolation capacitor, wherein bidirectional communication exists through the first and second isolation capacitors;

procedure (comprising “powered side circuitry”) of providing a clock signal from the powered side circuitry to the phone line side circuitry through at least one of the plurality of isolation elements that is separate from the first isolation capacitor and the second isolation capacitor; and

procedure (comprising “powered side circuitry”) of providing power from the powered side circuitry to the phone line side circuitry to generate at least one power supply within the phone line side circuitry while still maintaining the isolation required by the phone line isolation regulatory standards; wherein the encoded digital differential signal includes both data information and control information.

-Claim 63 is rejected with similar reasons set forth for claim 57.

4. Claims 60, 64 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 110 in view of claim 111 of copending Application No. 10/780,142. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented

-Regarding to claims 60 and 64, claim 110 does not teach that each of said plurality of isolation elements of said isolation barrier comprises a capacitor, as claimed.

Claim 111 teaches that each of such plurality of isolation elements of said isolation barrier is configurable to comprise a capacitor.

For an application, therefore, it would have been obvious for one skilled in the art to implement the plurality of isolation elements of said isolation barrier in the invention of claim 110 in such a way that each of said plurality of isolation elements of said isolation barrier would comprise a capacitor, so that the implementation would become another embodiment application derived from the invention of claim 110.

5. Claims 61, 65 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 110 in view of claim 112 of copending Application No. 10/780,142. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

-Regarding to claims 61 and 65, claim 110 does not teach that at least a portion of said plurality of isolation elements of said isolation barrier each comprises a capacitor, as claimed.

Claim 112 teaches that at least a portion of said plurality of isolation elements of said isolation barrier each is configurable to comprise a capacitor.

For an application, therefore, it would have been obvious for one skilled in the art to implement the plurality of isolation elements of said isolation barrier in the invention of claim 110 in such a way that a portion of said plurality of isolation elements of said isolation barrier each would comprise a capacitor, so that the implementation would become another embodiment application derived from the invention of claim 110.

6. Claims 66, 68-70, 73 and 75 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 110 in view of claim 84 of copending Application No. 10/780,142. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

-Regarding to claim 66, as similarly applied to claims 56-59 set forth above and herein incorporated, claim 110 discloses a method for communicating with phone lines across an isolation barrier that comprises a plurality of isolation elements, the method comprising:

procedure (comprising “phone line side circuitry”) of communicating a digital data stream as a digital differential signal from bi-directional connections on phone line side circuitry to bi-directional connections on powered side circuitry across at least two of the isolation elements of said isolation barrier, the at least two isolation elements comprising at least a first isolation capacitor and a second isolation capacitor, wherein bi-directional communication occurs across the first and second isolation capacitors;

procedure (comprising “powered side circuitry”) of providing a clock signal from the powered side circuitry to the phone line side circuitry through at least one of the plurality of isolation elements; and

procedure (comprising “powered side circuitry”) of providing power from the powered side circuitry to the phone line side circuitry while still maintaining the isolation required by the phone line isolation regulatory standards.

Claim 110 does not teach procedure of converting a signal received from phone lines into said digital data stream.

Claim 84, in a similar endeavor, teaches procedure of converting a signal “analog signals” received from phone lines into a digital data stream “digital data stream”.

Since claim 110 does not teach in detail how the digital data stream is generated and provided, it would have been obvious for one skilled in the art to additionally implement the method in claim 110 with a procedure, as taught by claim 84, in such a way that the procedure would convert a signal received from phone lines into said digital data stream, so that with such the implementation, said digital data stream would be provided as required.



-Regarding to claim 68, claim 110 teaches procedure (comprising “encode circuitry”) of encoding said digital data stream prior to said communicating (see claim 108).

-Claim 69 is rejected with similar reasons set forth for claim 58.

-Claim 70 is rejected with similar reasons set forth for claim 59.

-claim 73 is rejected with similar reasons set forth for claim 66, 69 and 70.

-Claim 75 is rejected with similar reasons set forth for claim 68.

7. Claims 71,76 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 110 in view of claim 84 and 111 of copending Application No. 10/780,142. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

-Claim 71, 76 are rejected with similar reasons set forth for claim 60.

8. Claims 72, 77 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 110 in view of claim 84 and 112 of copending Application No. 10/780,142. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

-Claims 72, 77 are rejected with similar reasons set forth for claim 61.

9. Claims 78, 79 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 56 of copending Application No. 10/780,142.

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This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

-Regarding to claim 78, claim 56 discloses a method for communicating with phone lines from a user end of the phone lines across an isolation barrier that comprises a plurality of isolation elements, the method comprising:

procedure (comprising “encoded circuitry”) of generating an encoded digital differential signal from a digital data signal “digital data stream”, wherein the encoded digital differential signal includes control data “control data” and the digital data signal;

procedure (comprising “isolation interface”) of communicating said encoded digital differential signal from user end powered side circuitry to user end phone line side circuitry across at least two of the isolation elements of said isolation barrier, the at least two isolation elements capacitor, wherein bidirectional communication exists through the first and second isolation capacitors;

procedure (comprising “powered side circuitry”) of providing a clock signal from the user end powered side circuitry to the user end phone line side circuitry through at least one of the plurality of isolation elements; and

procedure (comprising “powered side circuitry”) of providing power from the user end powered side circuitry to the user end phone line side circuitry while still maintaining the isolation required by the phone line isolation regulatory standards.

-Regarding to claim 79, claim 56 teaches that the encoded digital differential signal includes both data information (“digital data stream” or “framing data”) and control information “control data”.

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10. Claim 80 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 57 of copending Application No. 10/780,142. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

-Regarding to claim 80, claim 57 teaches procedure (comprising “powered side circuitry”) of providing a clock signal from the user end powered side circuitry to the user end phone line side circuitry through at least one of the plurality of isolation elements that is separate from the first isolation capacitor and the second isolation capacitor.

11. Claim 81 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 58 of copending Application No. 10/780,142. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

-Regarding to claim 81, claim 58 discloses that each of said plurality of isolation elements of said isolation barrier comprises a capacitor.

12. Claim 82 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 59 of copending Application No. 10/780,142. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

-Regarding to claim 81, claim 59 discloses that at least a portion of of said plurality of isolation elements of said isolation barrier comprises a capacitor.

***Allowable Subject Matter***

13. Claims 67 and 74 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

14. Applicant's arguments filed on 4/17/07 have been fully considered. Accordingly, claims 67 and 74 are indicated allowable as set forth above. However, claims 56-66, 68-73 and 75-82 are deemed not allowable because of reasons set forth above in this Office Action.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The examiner can normally be reached on M-F (8:00 AM - 4:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Phuong Phu*  
Phuong Phu  
06/14/07

**PHUONG PHU  
PRIMARY EXAMINER**

Phuong Phu  
Primary Examiner  
Art Unit 2611